April 1999

Department of Health Services
Joseph Munso, Acting Director

California Morbidity

State of California
Gray Davis, Governor

The California Tobacco Control Program Series
Article 2: You Asked for It ... You Got It! (Smoke-free Policies That Work)

Background

This is the second in a series of three articles on the efforts of the California Tobacco Control Program, the program established and supported by Proposition 99, the Tobacco Tax and Health Protection Act. The purpose of this article, like that of the first, is to report on progress made in California since January 1, 1989, toward reducing the use of and changing the social norms about tobacco; specifically, progress toward addressing the problem of environmental tobacco smoke (ETS) will be discussed. As in the first article, particular attention will be paid to the CDHS program: the Tobacco Control Section (TCS) of the Cancer Control Branch, Division of Chronic Disease and Injury Control.

Introduction

As was mentioned in the first article in this series, it is TCS contention that when program efforts, implemented properly within suitable populations and having one or more of three primary foci -- creating smoke-free environments around California; reducing or eliminating youth access to tobacco products; and countering pro-tobacco influences -- (along with the potential for positive interaction) are successful, changes in attitudes, perceptions, and norms of California youth and adults (and organizations) will follow. Furthermore, these social norm changes will ultimately lead to reductions in smoking prevalence and consumption, the "harder" measures tracked by TCS -- those markers (i.e., behaviors) which lead to tobacco-related disease and premature death. In the first article, the degrees to which these "harder" measures have been changing were quantified. In this article and in the next one, data from "behind the scenes" are presented. In other words, analogous to focusing on the assessing/changing of dietary habits for the purpose of cardiovascular disease prevention (read: the diet/heredity-hypercholesterolemia-cardiovascular disease three stage process), this article focuses on the assessing/changing of attitudes for the purpose of tobacco related disease prevention (read: the attitudes/social norms-active/passive smoker-tobacco related disease three stage process).

Methodology

In tracking the "behind the scenes" outcome measures of TCS programmatic effects with respect to reducing ETS (i.e., tracking the ETS-related attitudes of and policies affecting California adults and youth), two kinds of analysis were performed: first, using attitudinal data collected via the California Adult Tobacco Survey, cross-sectional descriptive analyses (for a given point in time) were performed. Determining descriptive statistics meant tallying the percentages of respondents who agreed or disagreed with a given ETS-related statement posed by a telephone interviewer, while excluding unknowns and refusals from the analyses. Further, respondents were stratified by smoking status (i.e., smoker or nonsmoker), using the state and federal standard definitions (for 1995), so as to ascertain how the two groups compared (at that point in time) with respect to their attitudes regarding TCS programmatic constructs. This first kind of analysis was performed, therefore, to gain a better understanding of Californians' thoughts about policy activity aimed at reducing ETS. Attitudinal data for 1997 are also included to assess whether the social norm changes are sustained.

The second kind of analysis involved using taxable transactions for California establishments holding eating and/or drinking place permits (from the California Board of Equalization (BOE)), together with county-level ETS-related policy data (from the Americans for Nonsmokers' Rights organization), to calculate pre- and post-policy average annual rates of change in transactions per establishment in order to determine if these policies, designed to protect the health of establishment employees and patrons by restricting ETS exposure, had any

negative effects, on the whole, on the revenues of the eating and/or drinking places in California. Any effect which would have impacted the revenues would be evident in the post-policy average annual rate of change when compared to the pre-policy average annual rate of change. Establishments in twenty-three counties (representing 74% of the total California population) which had a county-level ETS-related policy implemented during the 1989-1995 time period were included in the analysis; pre- and post- figures were weighted by the number of establishments used in the calculation. Moreover, in order to assess any potential confounding of these establishments' revenues via fluctuating business cycles, state-level personal income data (from the California Trade and Commerce Agency) were included in the pre-/post- analysis as proxies for bull or bear market forces. This second kind of analysis was performed, therefore, in order to determine if the ETS-reducing policy activity so desired by both smokers and nonsmokers in California were associated with any negative economic effects.

Results

First, attitudinal data are presented (Table 1): data for 1995 reveal that four out of five respondents felt that restaurants and cafeterias should be smoke-free, and an even greater proportion of respondents (i.e., 86%) felt that all indoor work sites should be smoke-free. Furthermore, very high proportions of respondents, who may very well have been indicating the reasons why they were in support of ETS-reducing policy activity, felt that ETS can (1) cause lung cancer in a nonsmoker (82.3% agree) and (2) harm the health of babies and children (93.7%). Furthermore, the 1997 data indicate that there is further increase in awareness of the harm of ETS, even more importantly, among the smoking population.

Table 1. The Percentages of Respondents Who Agreed in 1995 And Who Agree in 1997 (in parentheses) With Environmental Tobacco Smoke (ETS) related TCS Constructs

TCS Construct	Smokers	Nonsmokers	Total
Restaurants & cafeterias should be smoke-free.*	58.6 (76.5)	83.7 (91.3)	79.5 (88.7)
All indoor work sites should be smoke-free.*	66.8 (76.5)	89.9 (91.3)	86.0 (88.7)
ETS causes lung cancer in a nonsmoker.	59.7 (72.3)	86.9 (89.8)	82.3 (86.8)
ETS harms the health of babies and children.	85.5 (87.9)	95.4 (96.2)	93.7 (94.8)

* These two constructs were combined in 1997 into one question: "All indoor worksites, including restaurants and cafeterias, should be smokefree."
Source: California Adult Tobacco Survey (CATS)- CDHS.
Prepared by: Tobacco Control Section, California Department of Health Services, 1997

Second, policy-related data are presented (Table 2): the pre-policy average annual rate of change in taxable transactions per establishment, weighted and aggregated across all establishments in all counties included in the study, is statistically no different than the post-policy average annual rate of change in taxable transactions per establishment, weighted and aggregated across all establishments in all counties included in the study (i.e., the pre-policy figure is 0.027 percent per year, the post-policy figure is 0.034 percent per year, and the percentage

point difference between them is, therefore, very small), for the time period under investigation. In other words, there is no difference between what was happening economically before and after the smoke-free policy was implemented. Furthermore, with the inclusion of income data (for the purpose of controlling any potential confounding from the business cycles), the same kind of results are produced (i.e., the figures, per se, are different, while the difference between them is again negligible).

Table 2. Average Annual Rate of Change (AAROC) in Taxable Transactions per Establishment* (TTPE), Selected California Counties, 1989-1995

Time Period	AAROC in TTPE
Pre-policy	0.027% per year
Post-policy	0.034% per year

* Establishments which held Eating and/or Drinking Place Permits at the time of the study
Source: Calculations were made using 1989-1995 data from the California Board of Equalization.
Notes: Data are weighted and aggregated across all establishments in all counties included in the study.
Post-policy AAROC in TTPE is not significantly different from pre-policy AAROC in TTPE; $p < \alpha$
Prepared by: Tobacco Control Section, California Department of Health Services, 1997

Conclusions

Two major conclusions are drawn from these results: (1) based on the analysis of attitudinal data, Californians, regardless of smoking status are aware that there is harm in ETS, and overwhelmingly support ETS-reducing policy activity, and (2) based on the analysis of policy-related data, any concerns over potential negative economic effects of the implementation of ETS-reducing policies are allayed, as these data suggest that, contrary to the tobacco industry propaganda, there are no negative effects (on the types of businesses investigated in this study) associated with the implementation of such policies.

Therefore, the fact of the matter is that Californians want smoke-free environments across the state. Furthermore, policy activities toward this end are not economically detrimental, as has been propagated by the tobacco industry. Thus, the solution is simple, though the process, unfortunately, is not; consequently, CTCP, together with its constituents, must continue to work toward the achievement of this goal. In other words (reiterating what was stated in the first in this series of three articles), not until tobacco use is an historical phenomenon can CTCP and similar efforts cease.

Reported by: David J. Reynen, MPH; Tacey Buffington; Carol M. Russell, MPH; and Dileep G. Bal, MD, Tobacco Control Section, California Department of Health Services; Sacramento, CA

Note to Authors: Articles should be submitted to CM Editor, DCDC, CA Department of Health Services, 2151 Berkeley Way, Berkeley, CA 94704. Length should be approximately 1000 words or less. Tables, figures, and other materials can be included as supplements. Submit typed, double-spaced hard copy of text and tables along with electronic copies, preferably in Word or Wordperfect, Macintosh or Windows, on a floppy disk. Graphics may be in a graphic format. Acknowledgments as to source will be provided, and may be individuals and/or programs as suggested. Publication in *CM* should not preclude publication elsewhere.